

**STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
OFFICE OF CONSERVATION AND COASTAL LANDS  
Honolulu, Hawai'i**

File No.: CDUA OA-3360  
180-Day Expiration Date: December 30, 2006

July 28, 2006

**Board of Land and  
Natural Resources  
State of Hawai'i  
Honolulu, Hawai'i**

**REGARDING:** Conservation District Use Application (CDUA) OA-3360 for  
Fiber Optics Telecommunications System

**APPLICANT:** Sandwich Isles Communications, Inc.

**AGENT:** Randall Urasaki  
Parsons Brinkerhoff Quade & Douglas, Inc.

**LANDOWNER:** State of Hawai'i (Submerged Land)  
City and County of Honolulu

**LOCATION:** Sandy Beach Park, Wawamalu, Island of O'ahu  
TMK: (1) 3-9-015:001  
Submerged State Waters off of TMK (1) 3-9-012

**AREA OF PARCEL/** 9.57 Acres  
**AREA OF USE:** 7.6 Acres

**SUBZONE:** Limited/Resource

**BACKGROUND**

On May 13, 2005 the Board of Land and Natural Resources approved Conservation District Use Permit (CDUP) OA-3219 for a submarine fiber optic cable project by Sandwich Isles Communications, Inc. Due to delays in securing other required permits and approvals, the project did not start within the timeline outlined in the CDUP. Sandwich Isles Communications reapplied for a permit identical to the first on June 28, 2006. This new application is identical to the first.

Sandwich Isles Communications Inc. (SIC) was granted a license by the State of Hawai'i Department of Hawaiian Home Lands (DHHL) to provide modern telecommunications infrastructure for its properties at no cost to DHHL. Many Hawaiian Home Lands are in rural areas with little access to basic infrastructure, such as telephone service. To meet its obligation to DHHL, SIC is currently

installing terrestrial fiber-optic cable networks on O'ahu generally using State and County road Rights-Of-Way (ROW).

To connect the island networks, SIC has proposed to construct and operate approximately 30 miles of submarine fiber-optic cables Statewide, divided into the following four segments (**Exhibit 1**):

- Kekaha, Kaua'i to Makaha, O'ahu
- Hawai'i Kai, O'ahu to Kaunakakai, Moloka'i
- Kaunakakai, Moloka'i to Lahaina, Maui
- Makena, Maui to Kawaihae, Hawai'i

On July 9, 2004, the Board of Land and Natural Resources (BLNR) approved a Conservation District Use Application ST-3176 for the landing sites except for the Sandy Beach Park landing site. SIC was unable to obtain a Special Management Area (SMA) use permit prior to the July 9, 2004 BLNR Hearing, the BLNR and no choice but to exclude the Sandy Beach Park landing site from the CDUP.

On December 27, 2004 the City and County of Honolulu Department of Planning and Permitting approved an SMA minor permit. Sandwich Isles then applied for a CDUP for the Sandy Beach landing site, which the Board granted on May 13, 2005.

#### **DESCRIPTION OF AREA AND CURRENT USE**

The City and County of Honolulu, Department of Parks and Recreation own Sandy Beach Park located on the island of O'ahu. The proposed Sandy Beach Park cable landing site would be located at Wawamalu, Island of O'ahu, TMK:(1) 3-9-015:001. The proposed drill site would be on the Waimanalo-end of the park's grassy field within the Limited subzone of the Conservation District. The Diamond Head side of the park includes the parking area, two comfort stations, and a very popular sandy beach, which is about 1,200 feet long. The grassy area is highly utilized for kite flying, and much of the field is designated as a landing area for hang gliders that take off from the nearby Koko Head Crater. The drill site is not within this area (**Exhibit 2, 3 & 4**).

The drill site and construction area would be in an open grassy lawn that is maintained by the City Parks Department. The lawn is a mixture of different grass species. Vegetation along the highway includes a narrow band of low, windswept koa haole of about 5 to 6 feet tall, lumpy mats of Chinese violet, and clumps of Guinea grass, as well as other weedy species (**Exhibit 5 & 6**).

In general within the off shore area within the Resource subzone, coral development at the Exit Point (EP) is very low (less than 1% coverage), and plant communities do not appear to be well developed. A survey of marine species at the Sandy Beach Park landing site EP noted two algal species having a mean coverage of 0.7% and two coral species with a mean coverage of 1.6%. One macro invertebrate species, the Christmas tree worm, was noted, and the fish census noted four species of fishes (9 individuals) with the most species being the lined wrasse or malamalama.

From December to April, the endangered humpback whales visit the Hawaiian waters and are a common element offshore from the landing site parcel during this time.

The EP would be at a depth close to 70 feet, approximately 2,100 feet from the drill site. The substratum at the EP is a mix of sand and small areas of emergent limestone. The sand layer at the EP is at least two feet thick. The hard bottom limestone areas range in size from about 1' x 1' up to 6'

x 24' in size, and are spaced from 6 to 105 feet apart. No deep depressions, which could affect Horizontal Directional Drilling (HDD) operations, were observed shoreward of the EP.

Seaward of the park, a sewage outfall for the Hawai'i Kai Waste Water Treatment Plant and two submarine communications cables owned by Verizon Hawai'i and Oceanic Time Warner Cable are located near the landing site's EP. The proposed route distance from Hawai'i Kai, O'ahu to Kaunakakai, Molokai, is approximately 43 miles, and would cross existing undersea cables at three points.

## **PROPOSED USE**

Landing site infrastructure would include an under-seafloor/underground (landside) conduit, which would contain fiber-optic cables, and a beach manhole within the Kalaniana'ole highway ROW. In addition, since the landing site is not directly adjacent to the O'ahu terrestrial network, underground fiber-optic cable will be installed in the Kalaniana'ole Highway ROW to connect the landing site to the closest approach of the O'ahu terrestrial network. The ocean end or opening of the conduit is called the submarine EP. Seaward of the EP, the fiber-optic cable is double armor protected. A small trench would be dug to connect the cable from the drill site to the manhole in the highway ROW (**Exhibit 7**).

HDD would be used to install the under-seafloor conduits. HDD would avoid having to dredge or trench through sensitive coastal and near shore resources, such as beaches and coral reefs. A 6 to 8 inch diameter underground bore is created within which would be a steel casing or conduit. Drilling operations can be conducted during rough weather and high waves because the operation would be shore-based, and excavation would occur below the ocean floor (**Exhibit 8**).

A specialized cable-laying ship would precisely place the cable along a selected alignment between island landing sites. While moving, the vessel would release the cable at a rate to accurately place the cable on the ocean floor. Upon arrival at a landing site, the cable ship would set a position near the EP using tugboats, side-thrusters, or other means. The vessel would release the appropriate amount of cable. Using small motorboats and/or other mechanical means and divers, the cable would be pulled to the EP and through the steel casing to the drill site (**Exhibit 9 & 10**).

## **ANALYSIS**

Following review and acceptance of the application for processing, the applicant was notified, by letter dated January 25, 2005 that the Department has found that:

1. The proposed use is an identified land use within the Conservation District, pursuant to Chapter 13-5, Hawai'i Administrative Rules (HAR), Section 13-5-22, P-6, PUBLIC PURPOSE USE, D-2, "Transportation systems, transmission facilities for public utilities, water systems, energy generation facilities, and communications systems and other such land uses which are undertaken by non-governmental entities which benefit the public and are consistent with the purpose of the conservation district." Please be advised, however, that this finding does not constitute approval of the proposal;
2. Pursuant to §13-5-40 (a), HAR, a Public Hearing was held on May 25, 2004;
3. In conformance with Chapter 343, Hawai'i Revised Statutes (HRS), as amended, and Chapter 11-200, HAR, a Finding of No Significant Impact (FONSI) has been determined

and published in the Office of Environmental Quality Control's (OEQC) June 8, 2004 Environmental Notice. The accepting authority was the Department of Land and Natural Resources;

4. Satisfaction of the Special Management Area (SMA) has been met with the issuance of a SMA minor permit dated December 27, 2004, from the City and County of Honolulu Department of Planning and Permitting.

The following discussion evaluates the merits of the proposed land use by applying the criteria established in HAR §13-5-30.

1. *The proposed land use is consistent with the purpose of the Conservation District.*

The objective of the Conservation District is to conserve, protect and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety, and welfare.

Staff notes that the proposed use is considered an identified public purpose use within the Conservation District. Public purpose uses may include the provision of utilities by non-governmental entities, such as Sandwich isles Communications. In terms of past practice, the board of Land and Natural Resources (Board) has approved a number of CDUAs that involve the placement of utilities within the Conservation District such as sewer and water lines, wells, electrical transmission lines, telecommunication towers and submarine fiber lines.

Based on representations in the project description and EA, staff believes the cable-landing project is consistent with the purposes of the Conservation District. Moreover, by utilizing the technology of horizontal directional drilling at this site, the applicant is minimizing impacts to the near-shore marine environment.

2. *The proposed land use is consistent with the objectives of the subzone of the land on which the use will occur.*

The proposed submarine fiber-optic cable network, would be within submerged lands that are considered in the Resource subzone. The objective of the Resource subzone to develop, with proper management, areas to ensure sustained use of natural resources of those areas. The objective of the Limited subzone is to limit uses where natural conditions suggest constraints on human activities. At this site, surface drilling and trenching would all be buried subsequent to construction, and would not interfere with existing recreational activities of the park. Surface construction would occur at this site including the landside drilling platform, and trenching to Kalaniana'ole Highway. However, post construction, there will be no visible improvements in the Conservation District.

Staff has determined that the proposed project is consistent with the objectives of the subzones. Project mitigation measures (mainly horizontal directional drilling) avoid any trenching in the shoreline area. This significantly reduces environmental impacts within conservation lands. Once the cable has been installed, there should be no evidence of the installation in the Conservation District.

3. *The proposed land use complies with provisions and guidelines contained in Chapter 205, HRS, entitled "Coastal Zone Management," where applicable.*

Satisfaction of the Special Management Area (SMA) has been met with the issuance of a SMA minor permit dated December 27, 2004, from the City and County of Honolulu Department of Planning and Permitting.

Because the project requires a permit from a Federal agency (the Army Corps of Engineers), the Office of Planning was mandated to review the project for consistency with the State's Coastal Zone Management (CZM) program established by Chapter 205A, HRS.

4. *The proposed land use will not cause substantial adverse impacts to existing natural resources within the surrounding area, community, or region.*

The proposed land use will not cause adverse impacts to natural resources. Seaward of the shoreline, the fiber-optic cable will be placed within under-seafloor conduit constructed using HDD methods. Therefore, installation of the conduit will not require excavation or trenching through beaches, coral reefs or other sensitive nearshore resources. In addition, the EP locations and cable alignment seaward of the EP were carefully selected to avoid affecting sensitive resources, such as live coral reefs. Landside, the fiber-optic cable and conduit will be underground.

With these mitigation measures implemented, marine resources would be protected and the cable would not be detectable to the general public except for the beach manhole (within the highway right of way) and cable, which would daylight from the seafloor at some several thousand feet makai of the shoreline.

5. *The proposed land use, including buildings, structures and facilities, shall be compatible with the locality and surrounding area, appropriate to the physical conditions and capabilities of the specific parcel or parcels.*

The landing site infrastructure will be underground. Therefore, no existing uses, including recreational activities occurring at Sandy Beach Park will be affected except during construction.

6. *The existing physical and environmental aspect of the land, such as natural beauty and open space characteristics, will be preserved or improved upon, which ever is applicable.*

The use of directional boring will assure that the cable will not be visible on land or in the near-shore area; accordingly, staff believes the natural beauty and open space characteristics of the Conservation District will be preserved.

7. *Subdivision of the land will not be utilized to increase the intensity of land uses in the Conservation District.*

There will be no subdivision of land for this proposed project.

8. *The proposed land use will not be materially detrimental to the public health, safety and welfare.*

The proposed land use will not affect public health, safety and welfare. During construction, the public will be prohibited from entering construction sites due to safety concerns. Shoreline (e.g. beach, fishing, gathering) access at most sites will not be affected because the construction (HDD) site is within a parcel with a large expansive area. Construction activities on public roadways, such as installation of beach manholes and construction of connecting routes, will be conducted with public safety in mind. Police officers conducting special duty and/or flagmen will be posted during any activity within roadway rights-of-way.

Some disruption to ocean users in the water may occur when the directional drilling bit daylights at the ocean end and during installation of fiber optic cable by the cable ship. At these times, there will be ships; support boats and divers in the water, and the affected area will have to be closed off to ensure safety of the public. The closure of near-shore waters will be accomplished by publishing notice-advising mariners to temporarily avoid the area at these times, and should be monitored by our Division of Conservation and Resource Enforcement.

The closure of the near-shore waters is expected to be temporary and will last only for the duration of the daylighting and the cable laying activities, approximately 3-4 days each time. Once the cable is installed, there will be no further disruption to the area's recreational resources.

#### **DISCUSSION:**

On July 9, 2004, the Board of Land and Natural Resources (BLNR) approved CDUA ST-3176 for the landing sites except for the Sandy Beach Park landing site. Sandwich Island Communication was unable to obtain a Special Management Area (SMA) use permit prior to the July 9, 2004 BLNR Hearing, the BLNR and no choice but to exclude the Sandy Beach Park landing site from the CDUP.

Upon review of CDUA ST-3176, Staff notes there are no outstanding issues regarding this particular site. Satisfaction of the Special Management Area (SMA) has been met with the issuance of a SMA minor permit dated December 27, 2004, from the City and County of Honolulu Department of Planning and Permitting. In addition, Condition 16 of Conservation District Use Permit (CDUP) ST-3176 specifically states:

*When the applicant receives a Special Management Area Use Permit from the City and County of Honolulu, for the Sandy Beach landing site, OCCL will reschedule the matter for Board action to approve the Sandy Beach landing site.*

After receiving the SMA permit Sandwich Isles applied for a CDUP for the Sandy Beach landing site, which the Board granted on May 13, 2005. That CDUP, OA-3219, expired due to a delay in securing other necessary permits. This application is identical to CDUP OA-3219 in every respect except for the timeline.

#### **RECOMMENDATION:**

Based on the preceding analysis, staff recommends that the Board of Land and Natural Resources APPROVE this application for the Fiber Optics Telecommunications System located at Sandy Beach Park, Wawamalu, Island of O'ahu, TMK: (1) 3-9-015:001 and offshore in submerged State waters off of TMK (1) 3-9-012, subject to the following conditions:

1. The applicant shall comply with all applicable statutes, ordinances, rules, regulations, and conditions of the Federal, State, and County governments, and applicable parts of the Hawai'i Administrative Rules, Chapter 13-5;
2. The applicant, its successors and assigns, shall indemnify and hold the State of Hawai'i harmless from and against any loss, liability, claim or demand for property damage, personal injury or death arising out of any act or omission of the applicant, its successors, assigns, officers, employees, contractors and agents under this permit or relating to or connected with the granting of this permit;
3. The applicant shall obtain appropriate authorization from the Department of Land and Natural Resources for the occupancy of State lands;
4. The applicant shall comply with all applicable Department of Health administrative rules;
5. Before proceeding with any work authorized by the Board, the applicant shall submit four (4) copies of the construction and grading plans and specifications to the Chairperson or his authorized representative for approval for consistency with the conditions of the permit and the declarations set forth in the permit application. Three (3) of the copies will be returned to the applicant. Plan approval by the Chairperson does not constitute approval required from other agencies;
6. Any work done or construction to be done on the land shall be initiated within one year of the approval of such use, in accordance with construction plans that have been approved by the Department; further, all work and construction must be completed within three years of the approval;
7. The applicant shall notify the Office of Conservation and Coastal Lands (OCCL) in writing at least one week prior to both the initiation of drilling work within the conservation District and the cable installation, and upon completion of the project;
8. All mitigation measures set forth in the application materials and in the final environmental assessment for this project are hereby incorporated as conditions of the permit including but not limited to the following:
  - Marine construction activities shall be conducted within the period between April through October to avoid potential conflicts and harm to migratory whales;
  - The applicant shall provide the Division of Conservation and Resource Enforcement with advance notice and an opportunity to monitor the daylighting of the drill bit through the seafloor;
  - The closure of any park or public use area shall be coordinated with and approved by the respective managing agency of the State or County governments;
  - The applicant shall coordinate the advance notification and the actual closure of the beach or near-shore waters with the Division of Conservation and Resource Enforcement;
  - Beach or near-shore closures should avoid weekends and holidays to minimize impacts on recreational users;
  - If it were necessary to restrict shoreline access temporarily during construction, such restrictions would be lifted as soon as possible after construction is completed. The SIC contractor would inform the community and/or post signs on-site about

- temporary access restrictions. Special arrangements would be made to provide safe passage through the construction area;
- Best management practices (BMP) plans would be developed during the design phase. Although the landing site would not require an NPDES permit for Storm water Associated with Construction Activity, the same BMP measures shall be implemented at the site for the excavation work. The BMPs shall address procedures for testing and handling hazardous materials that may be encountered during construction;
  - A spill response plan would be prepared to address appropriate countermeasures in the event of accidental spills of oils or other substances used during construction. In the event of an accidental release of drilling mud, a marine biologist should examine the area of the release to determine whether live coral reefs have been damaged;
  - To prevent potential rodent problems, SIC would comply with Hawai'i Administrative Rules, Chapter 11-26 on "Vector control", including clearing vegetation harboring rodents and eradicating rodents in their facilities. However, because most of the cable infrastructure would be installed underground and in public rights-of-way, potential rodent problems are anticipated to be minor;
  - The underwater HDD pop-out event or cable hook-up would be suspended if a protected marine animal, such as the Hawaiian monk seal or green turtle, is observed in the immediate vicinity;
  - If a humpback whale or other protected marine animal, such as spinner dolphins, is spotted in the path of the cable vessel or in an area where they may interact with the vessel or deployment of the cable, the operation would be halted until the animal(s) moves away from the vessel or cable deployment area of its own volition;
  - The contractor would control off-site fugitive dust emissions by watering or covering exposed soils. The contractor would also be required to maintain their equipment in proper working order, including exhaust and noise suppression systems;
  - SIC or its contractor would inform residents near the proposed landing sites about drilling noise and provide contact information for questions and complaints. The SIC contractor would be required to maintain their equipment in proper working order, including all noise suppression systems;
  - All work within road rights-of-way would include the posting of flagmen to direct traffic safely around construction sites. For busier roads, Police Officers may also be used to direct traffic;
  - Coordinate with existing utilities shall occur during the design phase;
  - Construction plans affecting road rights-of-way (ROW) will be submitted for approval to the State Department of Transportation (DOT) and the County of Honolulu Department of Transportation Services during the engineering phase;
9. An after project report shall be submitted to the Department of Land and Natural Resources Land Division within thirty days of completion of the marine construction phase of the project. The report shall include the following information:
- a. A description of the immediate environment in which the bores daylight on the ocean bottom;
  - b. A discussion of any technical problems encountered during the drilling operations and the measures taken to correct the problem(s);



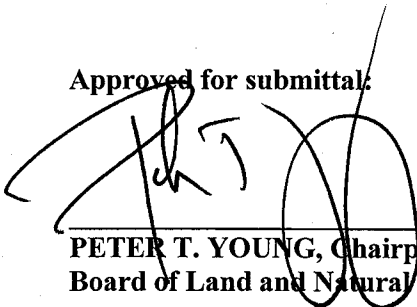
10. The applicant understands and agrees that this permit does not convey any vested rights or exclusive privilege;
11. In issuing this permit, the Department and Board have relied on the information and data that the applicant has provided in connection with this permit application. If, subsequent to the issuance of this permit, such information and data prove to be false, incomplete or inaccurate, this permit may be modified, suspended or revoked, in whole or in part, and/or the Department may, in addition, institute appropriate legal proceedings;
12. Where any interference, nuisance, or harm may be caused, or hazard established by the use, the applicant shall be required to take the measures to minimize or eliminate the interference, nuisance, harm, or hazard;
13. Should historic remains such as artifacts, burials or concentration of charcoal be encountered during construction activities, work shall cease immediately in the vicinity of the find, and the find shall be protected from further damage. The contractor shall immediately contact HPD (692-8015), which will assess the significance of the find and recommend an appropriate mitigation measure, if necessary;
14. Coral outcrops shall be avoided by careful routing and placement of the cables;
15. Other terms and conditions as may be prescribed by the Chairperson; and
16. Failure to comply with any of these conditions shall render this Conservation District Use Permit null and void.

Respectfully submitted,

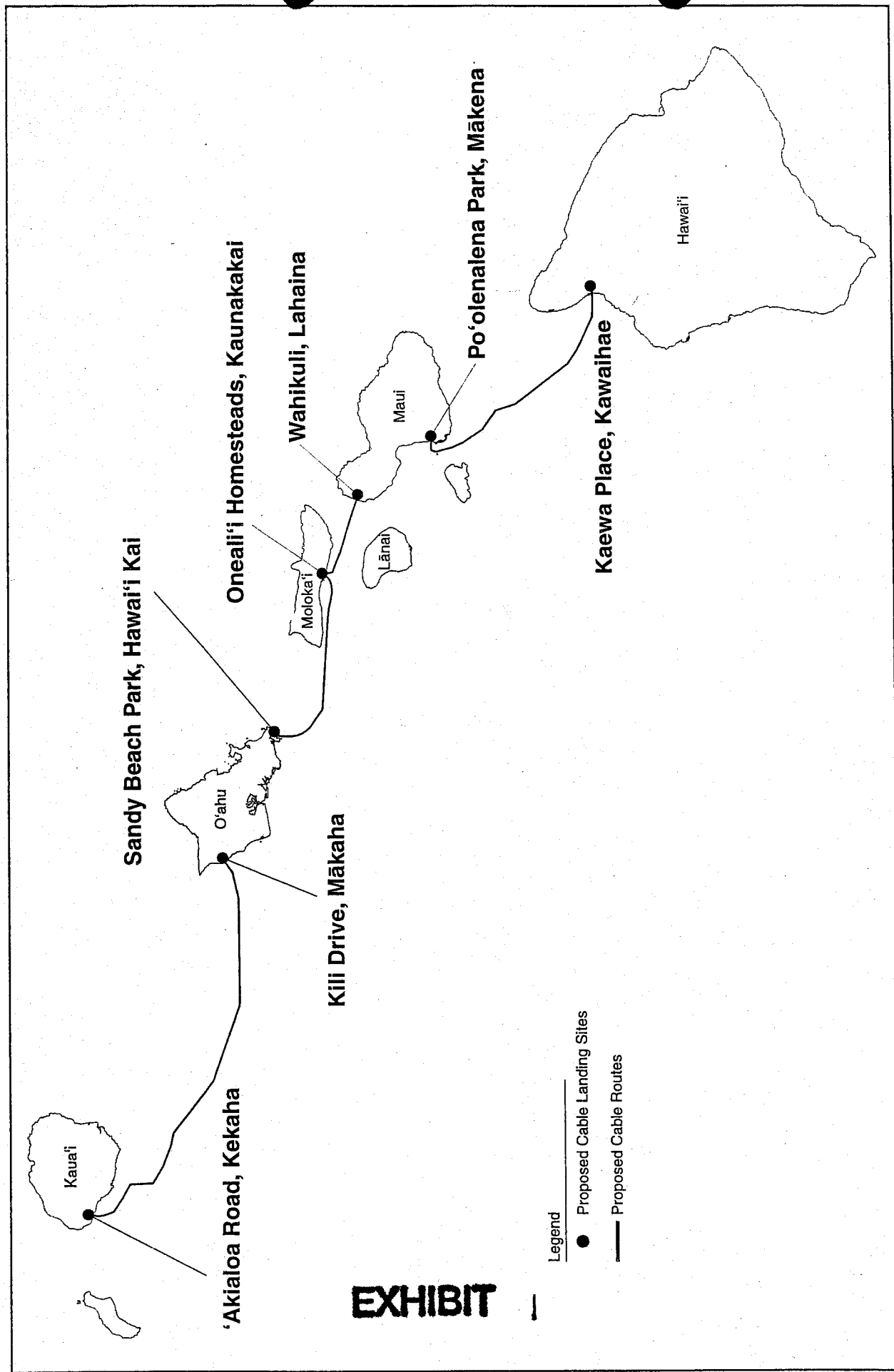


Michael Cain, Staff Planner  
Office of Conservation and Coastal Lands

Approved for submittal:

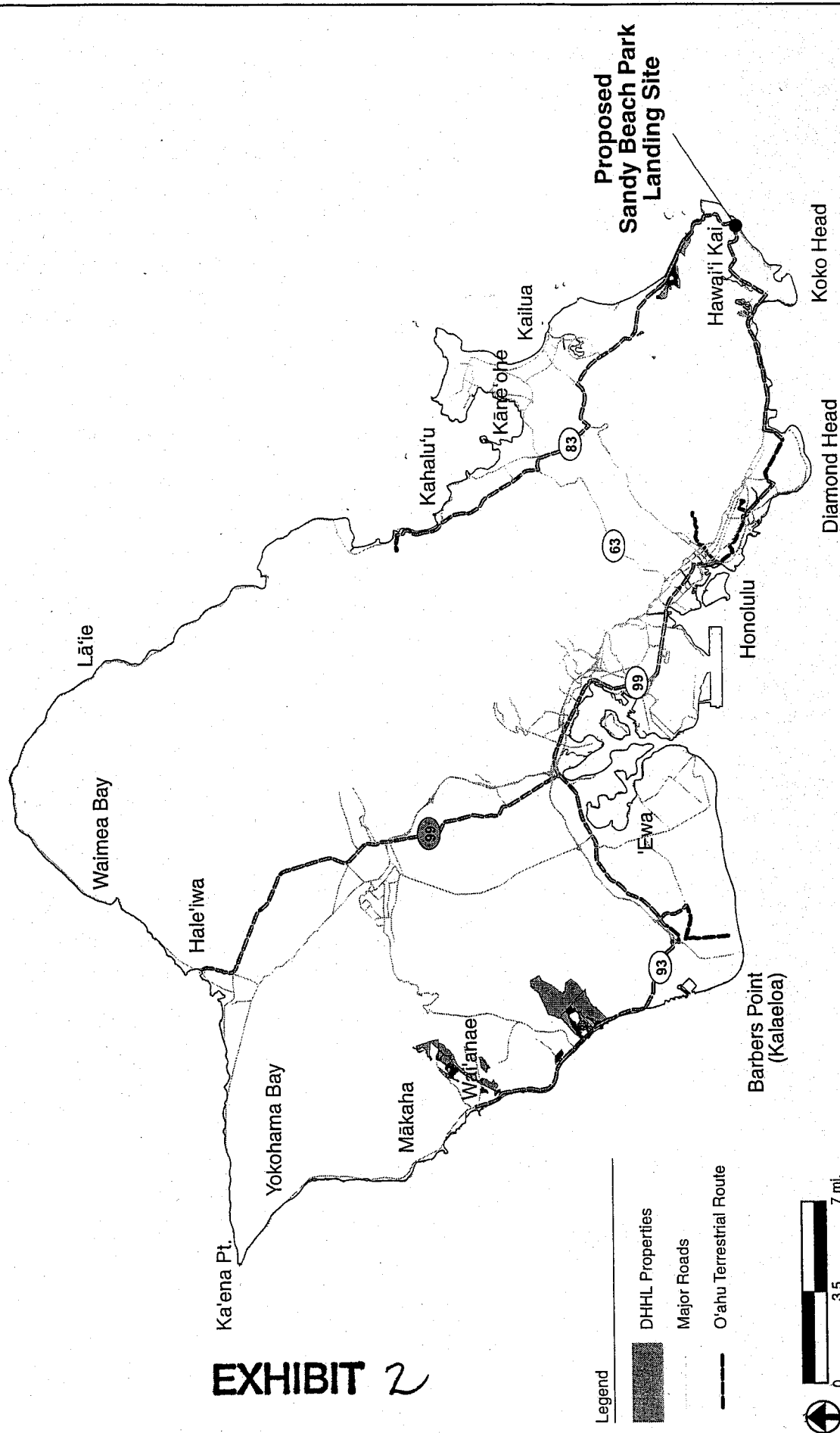


PETER T. YOUNG, Chairperson  
Board of Land and Natural Resources

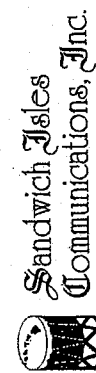


Proposed SIC Submarine Fiber-Optic Network  
Submarine Fiber-Optic Cable Project

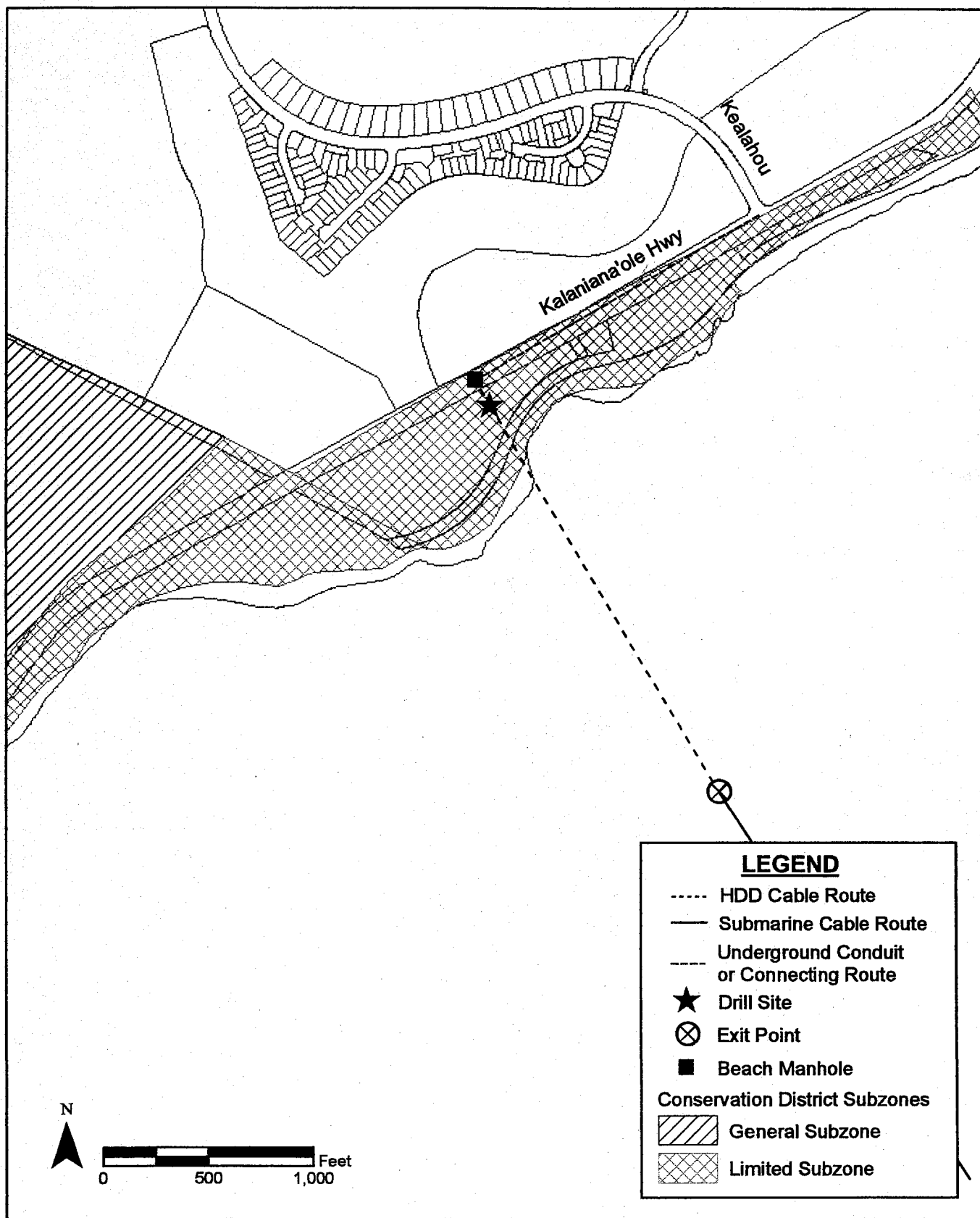
# EXHIBIT 2

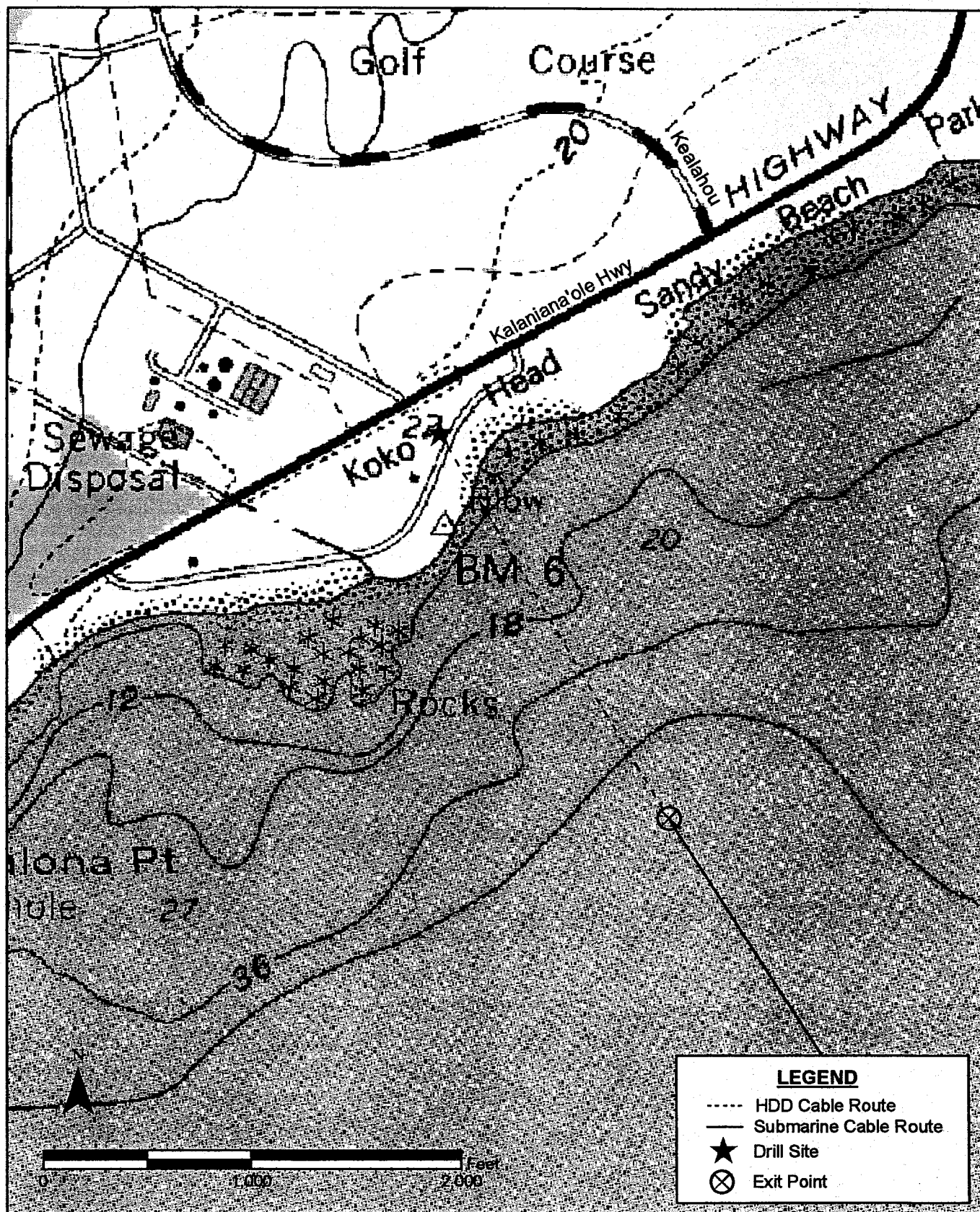


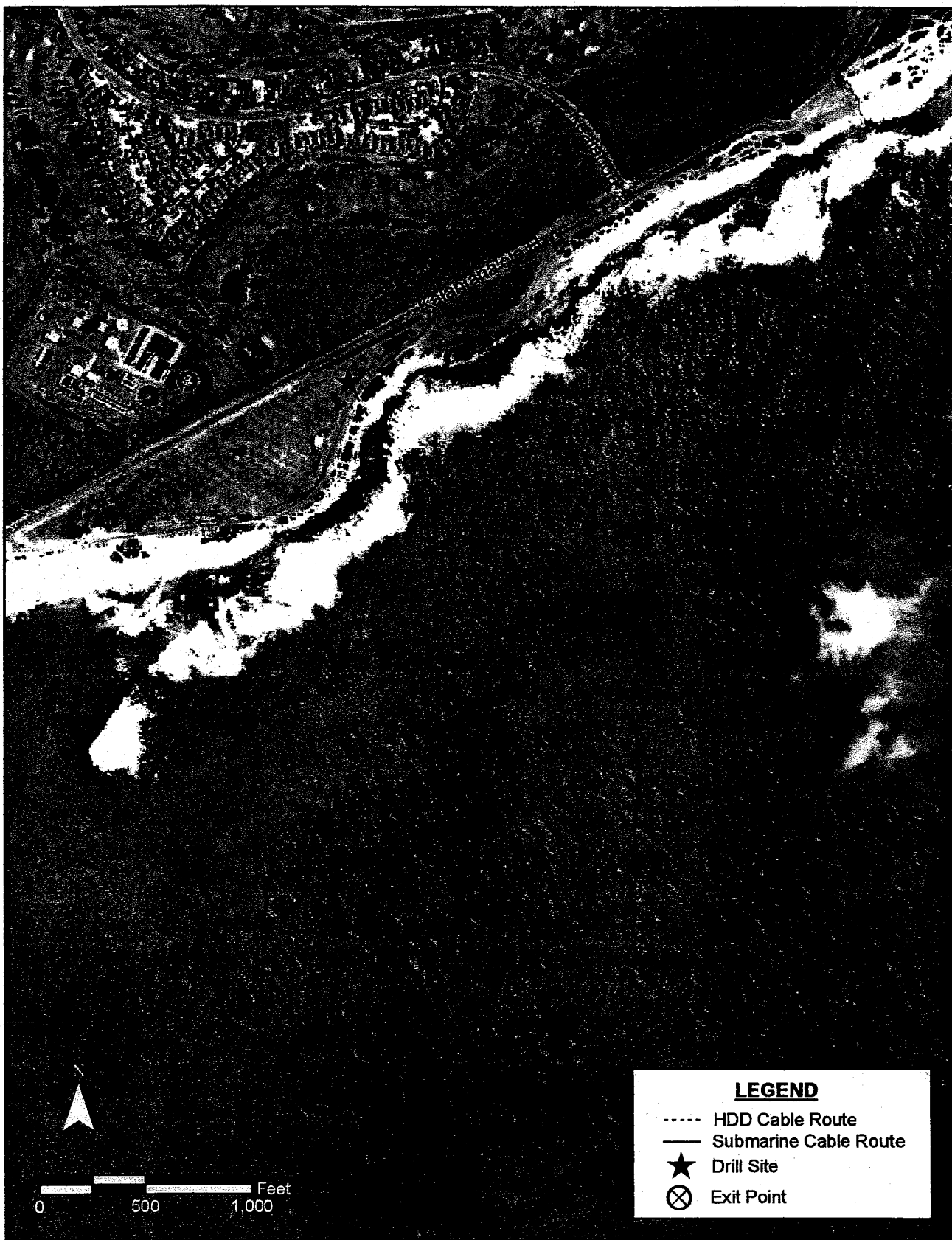
Sources: Base Map - DBEDT, Office of Planning, 1998; Terrestrial Route - SIC, 2002; DHHL Properties - Geographic Decision Systems International, 2002.

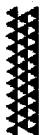
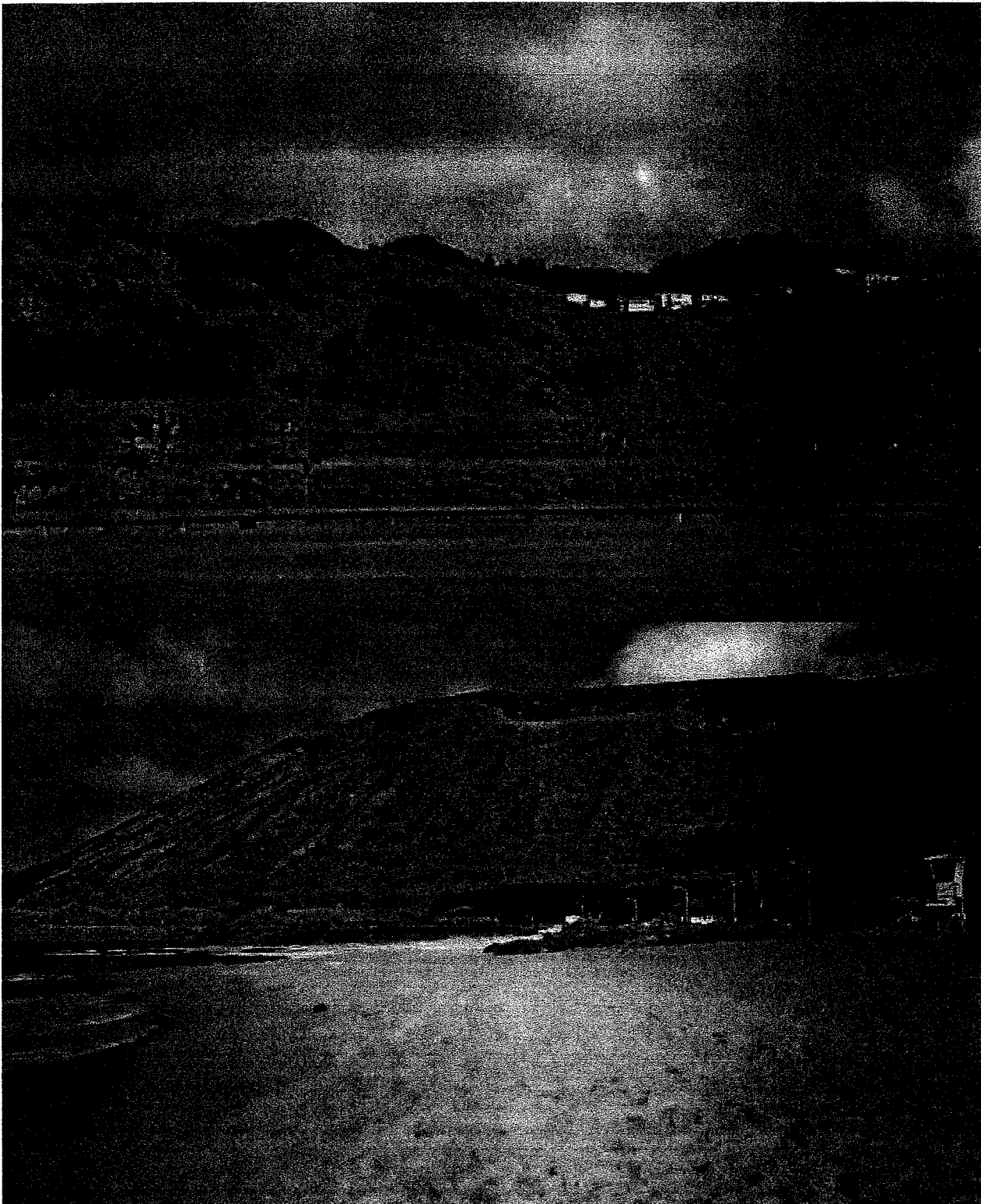


Location of Proposed Sandy Beach Park Landing Sites  
Submarine Fiber-Optic Cable Project







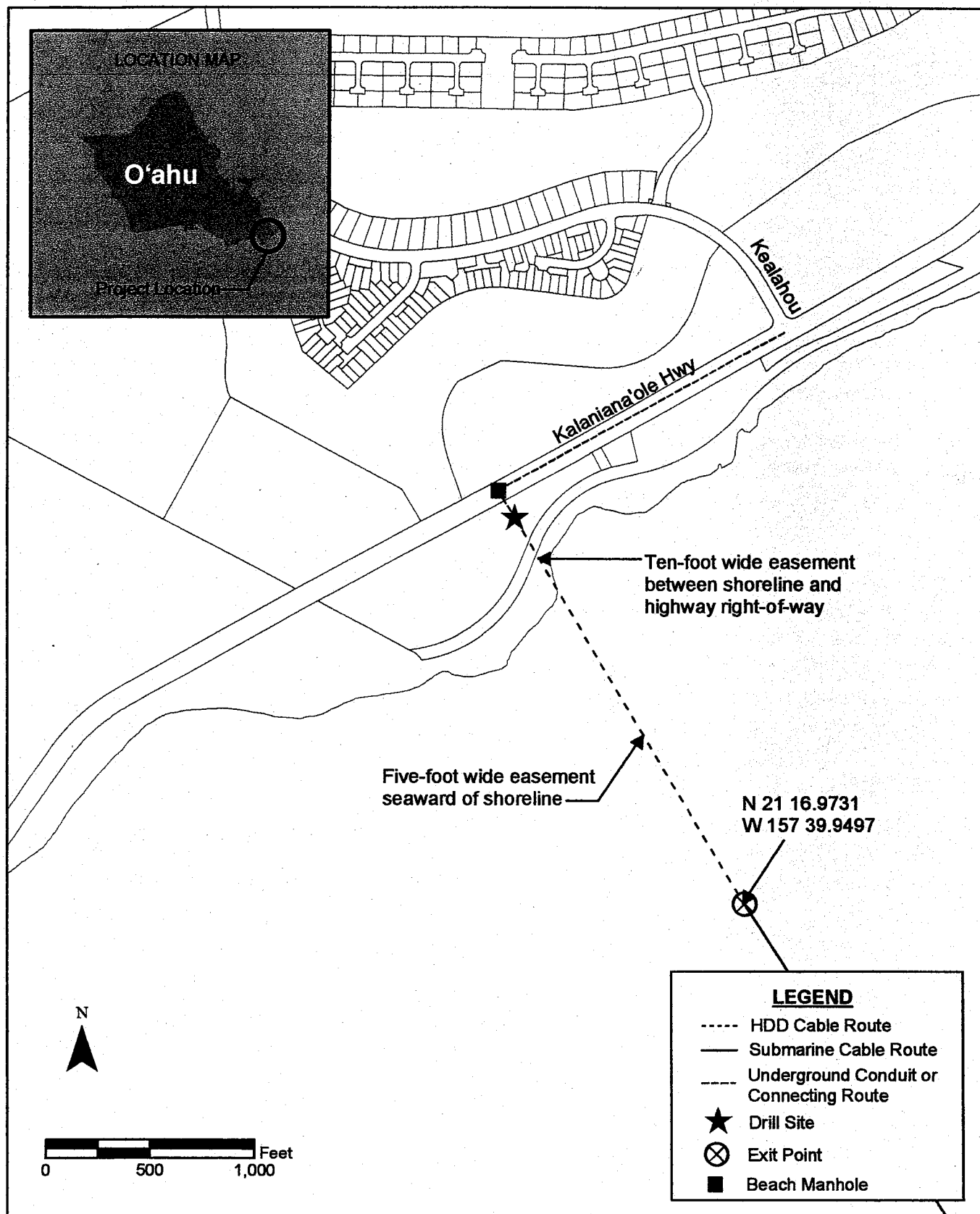


**Sandwich Isles  
Communications, Inc.**

*A Waimane Company*

**Photos of Sandy Beach Park Landing Site  
Submarine Fiber-Optic Cable Project**

**EXHIBIT 6**

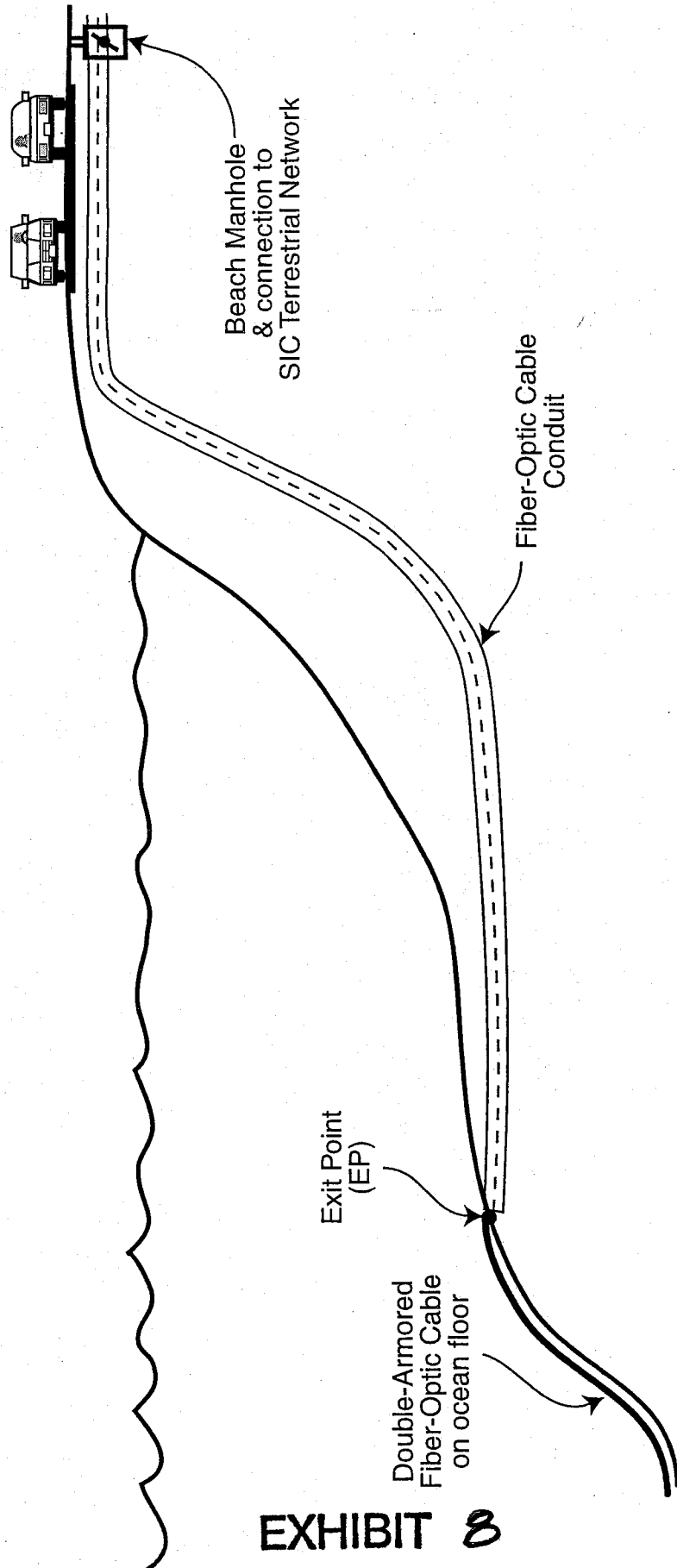


Sandwich Isles  
Communications, Inc.

Site Plan - Sandy Beach Park Landing Site

EXHIBIT 7

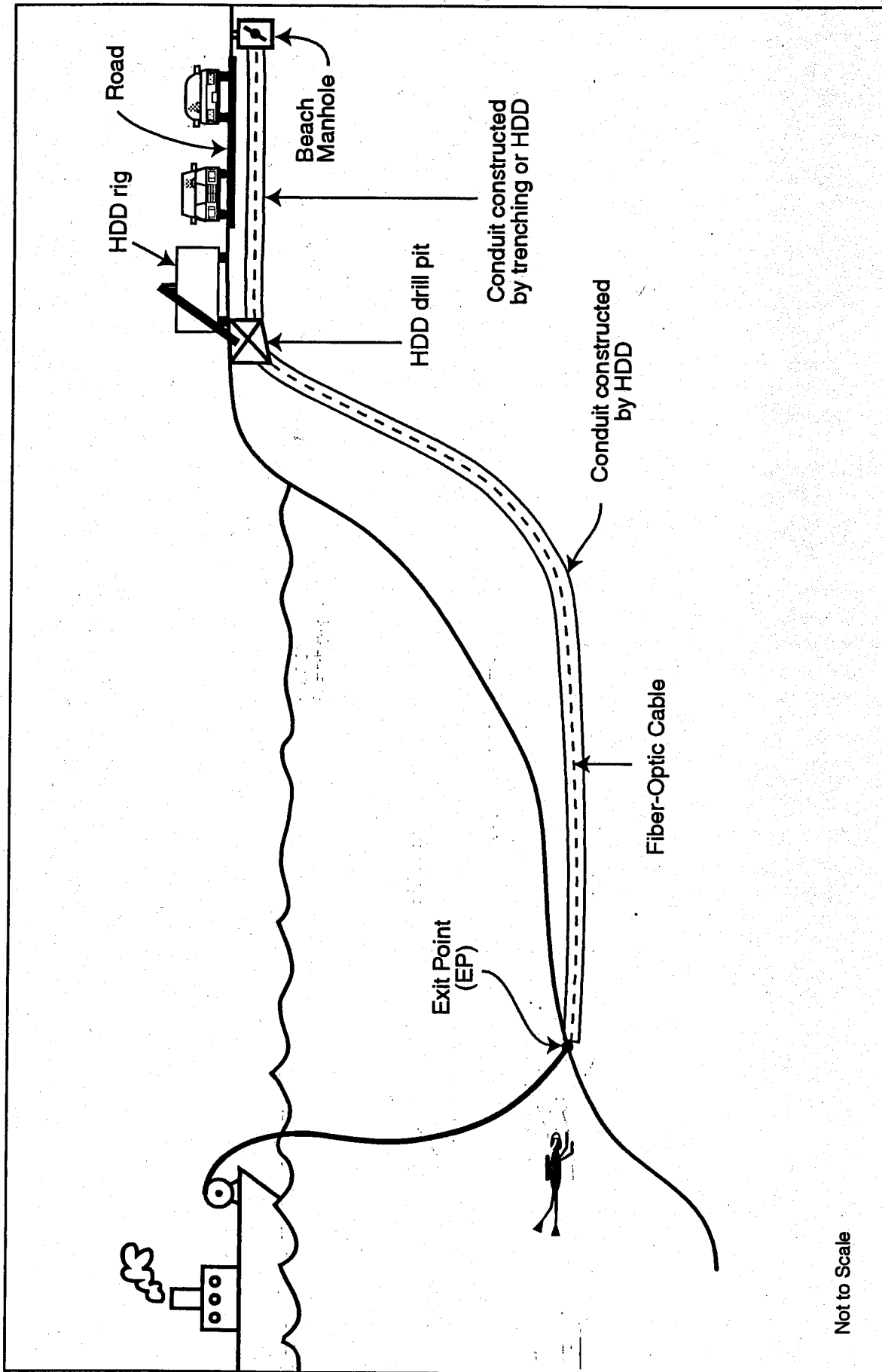




**EXHIBIT 8**

Not to Scale

Typical Landing Site Infrastructure  
Submarine Fiber-Optic Cable Project



Typical Construction Elements at Landing Sites  
Submarine Fiber-Optic Cable Protect

# EXHIBIT 10

## Legend

- ★ Drill Site
- Exit Point
- Existing cables (exact position unknown)
- Sewer Outfall



Source: Makai Ocean Engineering, Inc. 2003.

